Digital Video Recorders Quick Guide

BOSCH
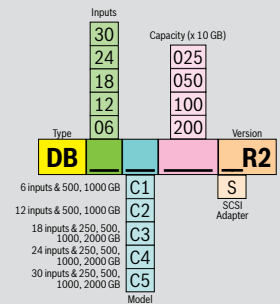**Invented for life**

Bosch Digital Video Recorders			DVR 400	DVR 600 (Divar MR)	DHR 700 Hybrid Recorder (XF)	DNR 700 Network Recorder (XF)	DHR 900 Rackmount (DiBos)
System	Operating System		Embedded	Embedded	Embedded	Embedded	Windows XP Embedded
	Rack Mountable		No	Yes	Yes	Yes	Yes
	SDK Available		No	No	Yes	Yes	Yes
	Warranty		3 Years	3 Years	3 Years	3 Years	3 Years
Video	Input	Channels	4	8, 16	Analog: 8, 16 IP: 8 (H.264)	IP: 8 Channel (upgradeable to 16) or, 16 Channel (upgradeable to 32)	Analog: 6, 12, 18, 24, 30 IP: 16, 32 (MPEG-4)
	Output	Looping Video	Yes	Yes	Yes	N/A	Yes
		Composite Outs	1	2	2	1	2
		VGA	Yes	1	2	1	1 (plus optional 2nd)
		Spot Monitor	1	1	1	0	2
Audio	Input	Channels	1 or 4	4, 8	8, 16	0	2, 4, 6, 8, 10 (plus up to 32 from IP cameras)
	Output	Channels	1	1	2	N/A	1
	Compression Type		ADPCM	ADPCM2	MPEG-2 Layer II	MPEG-2 Layer II	G.726
	Sample Rate		16 KHz	8 KHz	48 KHz	48 KHz	32 KHz
	Synchronous Audio		Yes	Yes	Yes	N/A	No
	Associate Multiple Cameras to 1 Audio		Yes	Yes	No	N/A	Yes
Alarms	Inputs		4	8, 16	8, 16 (plus 1 input per IP camera)	8, 16 (plus 1 input per IP camera)	32
	Relay Outputs		1 or 4	4, 8	5	5	16
	Call Up Pre-position on Dome Cameras		Yes	Yes	Yes	Yes	Yes
	Increase Frame Rate on Alarm		Yes	Yes	Yes	Yes	Yes
	Simultaneous normal and event recording		Yes	Yes	Yes	Yes	Yes
	Multiple Camera Linking on Alarm Event		Yes	No	Yes	Yes	Yes
	Notification via e-mail		Yes	Yes	No	No	Yes
	Notification to Remote PC		Yes	Yes	Yes	Yes	Yes
	Pre-alarm		Yes	Up to 60 Seconds	Up to 120 Seconds	Up to 120 Seconds	Yes
	Alarm Time		Up to 10 Minutes	Up to 10 Minutes	Up to 120 Seconds	Up to 120 Seconds	Yes
	Motion Detection		Yes	Yes	Yes	Yes	Yes
Recording	Compression	Video	H.264	MPEG-4	H.264	H.264	MPEG-4, JPEG
		Software or Hardware	Hardware	Hardware	Hardware	Hardware	Video Hardware, Audio Software
	Frame Rate (IPS)	PAL	100 IPS @ CIF	400 IPS @ CIF	600/720 IPS @ 4CIF	600/720 IPS @ 4CIF	75/150/225/300/375 @ CIF
		NTSC	120 IPS @ CIF	480 IPS @ CIF	800/960 IPS @ 4CIF	800/960 IPS @ 4CIF	90/180/270/360/450 @ CIF
	IPS per Camera	PAL	25 IPS @ CIF	25 IPS @ CIF	25 IPS @ 4CIF	25 IPS @ 4CIF	25 Per Camera Max 375 on a 30 Channel Unit @ CIF
		NTSC	30 IPS @ CIF	30 IPS @ CIF	30 IPS @ 4CIF	30 IPS @ 4CIF	30 Per Camera Max 450 on a 30 Channel Unit @ CIF
	Recorded Video Resolution	PAL	352 x 288/704 x 288/704 x 576	352 x 288/704 x 288/704 x 576	352 x 288/704 x 288/704 x 576	352 x 288/704 x 288/704 x 576	CIF/2CIF/4CIF Analog and IP Cameras
		NTSC	352 x 240/704 x 240/704 x 480	352 x 240/704 x 240/704 x 480	352 x 240/704 x 240/704 x 480	352 x 240/704 x 240/704 x 480	CIF/2CIF/4CIF Analog and IP Cameras
	Individual Camera Adjustment (IPS, Quality)		Yes	Yes	Yes	Yes	Yes
	Schedule Recording Modes		Day/Week/Specific Day 32 Exception Days	Day/Week/Specific Day	Weekday/Weeknight/Weekend Day/Weekend Night/32 Exception Days	Weekday/Weeknight/Weekend Day/Weekend Night/32 Exception Days	Day/Night/Weekend/Holiday/ Specific Day
	HDD Overwrite Warning		Yes	Yes	No	No	Yes
	Recording Times	Best Quality/Highest Resolution, 3 IPS Continuous, 50% Motion, Very Busy Scene (Outdoor), No Audio	4 Ch.: 27 Days (500 GB) @ 4CIF	8 Ch.: 9 Days (500 GB) @ 4CIF 8 Ch.: 18 Days (1000 GB) @ 4CIF 16 Ch.: 9 Days (1000 GB) @ 4CIF 16 Ch.: 18 Days (2000 GB) @ 4CIF	8 Ch.: 12 Days (500 GB) @ 4CIF 8 Ch.: 36 Days (1500 GB) @ 4CIF 16 Ch.: 6 Days (500 GB) @ 4CIF 16 Ch.: 18 Days (1500 GB) @ 4CIF 16 Ch.: 48 Days (3000 GB) @ 4CIF	8 Ch.: 12 Days (500GB) @ 4CIF 8 Ch.: 36 Days (1500GB) @ 4CIF 16 Ch.: 6 Days (500GB) @ 4CIF 16 Ch.: 18 Days (1500GB) @ 4CIF 16 Ch.: 48 Days (4000GB) @ 4CIF	6 Ch.: 19 Days (750 GB) @ 4CIF 12 Ch.: 10 Days (750 GB) @ 4CIF 18 Ch.: 9 Days (1000 GB) @ 4CIF 24 Ch.: 13 Days (1600 GB) @ 4CIF 30 Ch.: 10 Days (1600 GB) @ 4CIF
		Normal Quality/Standard Resolution, 3 IPS Continuous, 50% Motion, Very Busy Scene (Outdoor), No Audio	4 Ch.: 125 Days (500 GB) @ CIF	8 Ch.: 36 Days (500 GB) @ CIF 8 Ch.: 72 Days (1000 GB) @ CIF 16 Ch.: 36 Days (1000 GB) @ CIF 16 Ch.: 72 Days (2000 GB) @ CIF	8 Ch.: 120 Days (500 GB) @ CIF 8 Ch.: 363 Days (1500 GB) @ CIF 16 Ch.: 60 Days (500 GB) @ CIF 16 Ch.: 181 Days (1500 GB) @ CIF 16 Ch.: 484 Days (3000 GB) @ CIF	8 Ch.: 120 Days (500GB) @ CIF 8 Ch.: 363 Days (1500GB) @ CIF 16 Ch.: 60 Days (500GB) @ CIF 16 Ch.: 181 Days (1500GB) @ CIF 16 Ch.: 484 Days (4000GB) @ CIF	6 Ch.: 86 Days (750 GB) @ CIF 12 Ch.: 43 Days (750 GB) @ CIF 18 Ch.: 38 Days (1000 GB) @ CIF 24 Ch.: 58 Days (1600 GB) @ CIF 30 Ch.: 46 Days (1600 GB) @ CIF

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Storage	Internal HDD		500 GB	500 - 1000 - 2000 GB	0 - 500 - 2000 - 4000 - 8000 GB	0 - 500 - 2000 - 4000 - 8000 GB	250 - 500 - 750 - 1000 - 2000 GB
	Export	Supported Devices	USB 1.1 and USB 2.0	Internal CD/DVD Writer, USB 2.0	Internal CD/DVD Writer, USB 2.0	Internal CD/DVD Writer, USB 2.0	CD-RW, DVD, USB 2.0, Network Drive, SCSI
		Data Format	Native File Format	Native File Format	Native File Format	Native File Format	Bosch, ASF
		Back-up Mode	n/a	Manual or Automatic	Manual	Manual	Manual or Automatic
	On-board RAID		No	No	Yes (up to 6TB optional)	Yes (up to 6TB optional)	No
	Support SCSI Disk Array		No	No	Yes (iSCSI)	Yes (iSCSI)	Yes, DVSA (Lite and Premium)
	Max. SCSI Array Configuration		n/a	n/a	120TB (60 LUNs @ 2TB)	120TB (60 LUNs @ 2TB)	13.8 TB**
Search	Timeline Search Bar (Color Coded)		Yes	Yes	No	Yes	Yes
	Search Mode		Date/time, Events, Motion, Motion Search	Date/time, Camera Number, Events, Motion, Bookmark, Smart Motion Search	Date/time, Camera, Events, Motion, Smart Motion Search and Text	Date/time, Camera, Events, Motion, Smart Motion Search and Text	Date/time, Camera Name, Events, Pre-Alarm, Motion, Smart Motion Search
	Smart Motion Search – Motion in specific area		Yes	Yes	Yes	Yes	Yes
Display	Live Resolution	PAL	720x576	720 x 576	720 x 576	720 x 576	CIF/2CIF/4CIF Analog and IP Cameras
		NTSC	720x484	720 x 484	720 x 484	720 x 484	CIF/2CIF/4CIF Analog and IP Cameras
	Screen Division (Multi-screen)		Full, 2x2, Sequence	Full, Sequence, 2x2, 3x3, 4x4, 5+1, 7+1	Full, Sequence, 2x2, 3x3, 4x4	Full, Sequence, 2x2, 3x3, 4x4	Full, 2x2, 3x3, 4x4, 5x6
	Digital Zoom		Yes	No	Yes	Yes	Yes
	Camera Lock-outs by User		Yes	Yes	Yes	Yes	Yes
Security/User Management	User Control	User Levels	3	3	8	8	Unlimited
		Add/Delete	Yes	Yes	Yes	Yes	Yes
		Set Viewing Permissions	Yes	Yes	Yes	Yes	Yes
		Centralized User Management	No	No	No	No	Yes - LDAP
		Event Logging by User	No	No	No	No	Yes
	Data Integrity Check (Watermarking, etc.)		Yes	Yes	Yes	Yes	Yes
Remote Access	Network	Connection	10/100 Ethernet	10/100 Ethernet	10/100/1000 Ethernet	10/100/1000 Ethernet	10/100/1000 Ethernet
		Protocol	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP, UDP Tunneling
	Web Browser Access		Yes	Yes	No	No	Yes
	Simultaneous Accessible Users		4	5	5	5	20 with software; 5 with web browser
	Remote PC Client	Resolution (live)	352x288 (PAL) / 352x240 (NTSC)	352x288 (PAL) / 352x240 (NTSC)	704x576 (PAL) / 704x480 (NTSC)	704x576 (PAL) / 704x480 (NTSC)	CIF/2CIF/4CIF Analog and IP Cameras
		Full Admin Control	Yes	Yes	Yes	Yes	Yes, Remote Desktop
		PTZ Control	Yes	Yes	Yes	Yes	Yes
		Export Options	Native File Format	Native File Format and .AVI (individual and multiple cameras)	Native File Format	Native File Format	Bosch (All Cameras) ASF (Individual and Multiple Cameras)
Other Features	Instant Playback		Yes	Yes	Yes	Yes	Yes
	Bilinx/Up-the-Coax Camera Control		No	No	No	No	Yes
	Digital Zoom on Playback		Yes	No	Yes	Yes	Yes
	PTZ Joystick Control		No	Yes	Yes	Yes	Yes - DiBos/Bosch VMS
	ATM/POS Interface		No	No	Yes	Yes	Yes
	OPC Support		No	No	No	No	Yes
Ordering Information	Part Numbers/Ordering Charts		DVR-430-04A050 (500 GB) DVR-451-04A050 (500 GB/DVD)	DVR-8K-050A (500 GB) DVR-8L-050A (500 GB/DVD) DVR-8L-100A (1000 GB/DVD) DVR-16K-050A (500 GB) DVR-16L-050A (500 GB/DVD) DVR-16L-100A (1000 GB/DVD) DVR-16L-200A (2000 GB/DVD)	DHR-730-08A000 (8CH/0GB/1 NW) DHR-730-08A050 (8CH/500GB/1 NW) DHR-730-08A200 (8CH/2TB/1IP) DHR-730-08A400 (8CH/4TB/1IP) DHR-730-08A800 (8CH/8TB/1 NW) DHR-751-16A000 (16CH/0GB/1 NW) DHR-751-16A050 (16CH/500GB/1 NW) DHR-751-16A200 (16CH/2TB/1 NW) DHR-751-16A400 (16CH/4TB/1 NW) DHR-751-16A800 (16CH/8TB/1 NW) DHR-732-08A000 (8CH/DVD/0GB/1 NW) DHR-732-08A050 (8CH/DVD/500GB/1 NW) DHR-732-08A200 (8CH/DVD/2TB/1 NW) DHR-732-08A400 (8CH/DVD/4TB/1 NW) DHR-732-08A800 (8CH/DVD/8TB/1 NW) DHR-753-16A000 (16CH/DVD/0GB/1 NW) DHR-753-16A050 (16CH/DVD/500GB/1 NW) DHR-753-16A200 (16CH/DVD/2TB/1 NW) DHR-753-16A400 (16CH/DVD/4TB/1 NW) DHR-753-16A800 (16CH/DVD/8TB/1 NW) DHR-754-16A000 (16CH/DVD/0GB/2 IP) DHR-754-16A050 (16CH/DVD/500GB/2 IP) DHR-754-16A200 (16CH/DVD/2TB/2 IP) DHR-754-16A400 (16CH/DVD/4TB/2 IP) DHR-754-16A800 (16CH/DVD/8TB/2 IP)	DNR-732-08A000 (8CH/DVD/0GB/1 NW) DNR-732-08A050 (8CH/DVD/500GB/1 NW) DNR-732-08A200 (8CH/DVD/2TB/1 NW) DNR-732-08A400 (8CH/DVD/4TB/1 NW) DNR-732-08A800 (8CH/DVD/8TB/1 NW) DNR-753-16A000 (16CH/DVD/0GB/1 NW) DNR-753-16A050 (16CH/DVD/500GB/1 NW) DNR-753-16A200 (16CH/DVD/2TB/1 NW) DNR-753-16A400 (16CH/DVD/4TB/1 NW) DNR-753-16A800 (16CH/DVD/8TB/1 NW) DNR-754-16A000 (16CH/DVD/0GB/2 NW) DNR-754-16A050 (16CH/DVD/500GB/2 NW) DNR-754-16A200 (16CH/DVD/2TB/2 NW) DNR-754-16A400 (16CH/DVD/4TB/2 NW) DNR-754-16A800 (16CH/DVD/8TB/2 NW)	(ordering chart diagram)